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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,181	06/30/2003	William A. Street	ACE-18862	8790
10361	7590	08/06/2004	EXAMINER	
ANTONY C. EDWARDS SUITE 800 - 1708 DOLPHIN AVENUE KELOWNA, BC V1Y 9S4 CANADA			MULL, FRED H	
			ART UNIT	PAPER NUMBER
			3662	

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,181

Applicant(s)

STREET, WILLIAM A.

Examiner

Fred H. Mull

Art Unit

3662

NW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-30-2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the rejection(s) over Kawakami have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over Cardamone, and a new 35 USC 112 rejection has been added.

Drawings and Specification

2. The drawing is objected to because it contains the label "FIG. 1". This label should be removed from the drawing. 37 CFR 1.84(u)(1) states that when there is only a single drawing, it must not be numbered nor include the label "FIG", and that in the specification it should be referred to as "the Figure". Appropriate corrections to the drawings and specification is required

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The scope of the limitation "a homing frequency close to said main frequency" is unclear. From MPEP 2173.05(b), for a claim using a term of degree: "a determination is to be made as to whether the specification provides some standard for measuring that degree". It appears that the closest thing in the specification to such a standard is on p. 3, 3rd ¶, that the homing frequency is close to a main frequency if such closeness (1) reduces the cost of the device, (2) eliminates the need for a second transmitter, (3) eliminates the need for a dual frequency diplexer, (3) eliminates the need to match to an electrically short antenna, (2) reduced the problems currently experienced when users hold their EPIRBs, (6) reduces RF interference problems in location protocol beams, and (7) reduces L band interference generated when aviation radios.

It is unclear how close in frequency the homing frequency needs to be to fit this criteria. The example provided by applicant, that the main frequency is 406.028 MHz and the homing frequency is in the range 406-406.1 MHz (p. 5, 1st ¶), shows that 0.072 MHz away is close enough to 406.028 MHz. But would 1 MHz (or 5 MHz or 10 MHz) be close enough? What if the main frequency is 5 MHz? Then would 0.072 MHz (or 1 MHz or 5 MHz) be close enough to that main frequency? Or is a certain percentage of the difference in frequency relative to the main frequency that makes the homing frequency close to the main frequency? For example, the difference between 406.028 and 406.1 MHz is 0.01773% of 406.028 MHz. Would 0.02% be close enough?

Among other things, the standard requires: (2) reduced the problems currently experienced when users hold their EPIRBs, and (7) reduces L band interference

generated when aviation radios. Would a beacon need to be in the L band and of a frequency currently used by EPIRBs to be within the scope of the claims?

Since the scope of the claims cannot be determined, the claim is indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Cardamone.

In regard to claim 1, Cardamone discloses a search and rescue beacon comprising a main transmitter transmitting a Cospas-Sarsat signal at a main frequency and an auxiliary homing transmitter transmitting a homing signal at a homing frequency close to said main frequency (col. 1, lines 8-15). Note that the homing signal and beacon signal can be on one frequency. If they are both on one frequency, they are close to each other. Being on one frequency would (1) reduce the cost of the device by (2) eliminating the need for a second transmitter, (3) eliminating the need for a dual frequency diplexer, (3) eliminating the need to match to an electrically short antenna, plus it would (2) reduce the problems currently experienced when users hold their EPIRBs, (6) reduce RF interference problems in location protocol beams, and (7) reduce L band interference generated when aviation radios.

In regard to claim 3, Sarsat EPIRBs broadcast with the 406-406.1 MHz band.

In regard to claims 5-6, since the homing frequency is the same as the main frequency, and the main frequency is in the 406-406.1 MHz band, the homing frequency is also in the 406-406.1 MHz band.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 7-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardamone.

In regard to claims 2 and 15, it would have been obvious use a single synthesizer, since only a signal frequency is being produced.

In regard to claims 4 and 16, Sarsat EPIRBs broadcast with the 406-406.1 MHz band.

In regard to claims 7-8 and 17-18, since the homing frequency is the same as the main frequency, and the main frequency is in the 406-406.1 MHz band, the homing frequency is also in the 406-406.1 MHz band.

In regard to claims 9 and 19, it would have been obvious use a single amplifier chain, since only a single frequency is being produced by a single synthesizer.

In regard to claims 10 and 20, it would have been obvious use a single antenna, since only a single frequency is being broadcast, and therefore, if the antenna is optimized for the frequency of one signal, it is automatically optimized for the frequency of the other.

In regard to claims 11, 13, and 21, it would have been obvious that a homing signal to a searching vessel which already has the rough position of the device would not require as much power as a signal needed to reach a satellite.

In regard to claims 12, 14, and 22, 50 mW would be an obvious lower power for the homing signal, being one-half the power of the main signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred H. Mull whose telephone number is 703-305-1250. The examiner can normally be reached on M-F 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 703-360-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred H. Mull
Examiner
Art Unit 3662

fhm


GREGORY C. ISSING
PRIMARY EXAMINER